

November 29, 2005

To: Leon County Board of County Commissioners
From: Leon County Science Advisory Committee
Chair: William M. Landing, Ph.D.

In response to the request from the Leon County Board of County Commissioners, the Science Advisory Committee met on November 4, 2005 to discuss the proposal to move the oversight of the Lakes Water Quality Monitoring Program from Growth and Environmental Management to Public Works, and to combine it with the proposed tributary monitoring program, under the supervision of the Water Quality Scientist (Mr. Johnny Richardson). We were also briefed by Mr. Richardson at our October 7, 2005 meeting. Copies of Mr. Richardson's PowerPoint presentation, the current lakes water quality monitoring scope of services, and the RFP for the new program were made available to the SAC to review. This report summarizes the results of our review.

The committee recognizes the advantages in combining the water quality monitoring programs under one supervisor who is well trained in data quality assurance and control (QA/QC), since data reliability is the most important facet of the program. Because the NPDES and TMDL compliance programs are under Public Works, it also makes some sense to have the water quality monitoring programs supervised by someone from Public Works. However, this is not a necessity. The Water Quality Scientist will be responsible for receiving and interpreting the water quality data as it is reported by the contractor, and it should not make any difference (in theory) whether they occupy an office in Growth Management or Public Works.

The committee discussed one possible disadvantage to combining the lake monitoring program with the proposed tributary monitoring program, and moving the program from Growth Management to Public Works. Comments have been made that Growth Management acts as a buffer between development pressures and environmental protection, while Public Works includes many areas which are essentially devoted to promoting development in the county. Concern has been expressed that departmental support within Public Works for strong water quality monitoring programs might weaken over time as a result of this difference in focus. And, while the credentials of Mr. Richardson are very appropriate for supervising the water quality monitoring programs, what might happen if Mr. Richardson were to be replaced by someone who's commitment to environmental data quality were not as strong? We therefore recommend that this position should always be filled by someone with appropriate credentials and experience in water quality monitoring and data interpretation.

Will there be a hiatus in the lakes monitoring program if this consolidation and shifting of programs occurs? There doesn't need to be. The existing monthly lake monitoring should be continued while a contractor is identified to run the integrated program.

Will the water quality monitoring data be available in a timely manner for Growth Management and the Science Advisory Committee to review if the program moves to Public Works? Making sure this happens should be a specific task for the Water Quality Scientist.

Regarding the RFP, concerns were expressed regarding the selection criteria for the contractor. Section V-B (page 8/51) states that an Evaluation Committee will select the most qualified firm. We recommend that this Evaluation Committee include one or more people with significant laboratory, field, and QA experience, such as someone from the FDEP laboratory section or the City of Tallahassee water quality laboratory

Concerns were expressed over the weighting given to various components of the evaluation criteria listed in section V-F (page 8/51). Data reliability is the most important factor in a water quality monitoring program. This includes issues such as accuracy, precision, completeness, and frequency of holding-time violations. Many commercial analytical labs will only certify their water quality analytical data to within $\pm 25\%$. This project should demand analytical accuracy and precision (as demonstrated by externally-administered proficiency testing) that are no worse than the PQL levels specified on page 38/51.

The best contractor will be one that has demonstrated capability by past performance. Criterion 1 (past performance, quality, completeness of work, etc.) should therefore count for more than 20% of the decision. Criterion 2 (staff qualifications) should focus on the ability of the staff to collect the samples in the proper manner, and to analyze those samples with the highest levels of accuracy and precision, and to do that within the specified holding times. A list of the staff's education levels and experience on prior projects is far less useful than actual analytical proof that they can do the job properly. Criterion 3 (project approach and quality of response) may carry too much weight (30%), depending on how the Evaluation Committee interprets these terms. The project approach is essentially dictated within the RFP. The sampling sites and frequency are specified, and the sampling and analytical methods are specified by the FDEP and NELAC/DOH standard operating procedures. What is meant by the "quality of the response?" Many consulting firms devote tremendous resources to producing slick application packages. Those resources would be better spent if they were devoted to generating higher quality data. It is not clear why Criterion 5 (consultants) is included. We found no explanation for this criterion. Using project resources to pay consultants is wasteful. The county's Water Quality Scientist should be able to answer any questions the contractor might have, and should be able to provide guidance on the overall project as the work progresses. It is not clear why budget breakdown and overall cost are not included in the evaluation criteria. A consulting firm that proposes to collect the samples and subcontract the analytical work to a commercial lab will generally cost more and produce lower quality data than a firm that conducts the sampling and analysis in-house with highly qualified staff.

Concern was expressed that while the RFP includes monitoring of tributary water quality, it does not make any provision for flow measurements. Calculating loading to any water body requires flow rates and concentration data. We understand that Public Works intends to explore the use of hydrologic models to calculate loadings, and will consider adding flow measurements in future years.

Finally, the SAC proposes to take a more active role with respect to the water quality monitoring programs. Over the next 6 months, we propose to review all of the lake water quality data that has been reported by McGlynn Labs. One purpose will be to judge whether regular

monthly lake sampling is required. If the sampling frequency were changed to bi-monthly, this would free up resources to increase the tributary monitoring to bi-monthly as well. However, we recommend retaining the lake water quality monitoring program as it currently exists (number of stations and sampling frequency) until the data collected thus far can be carefully reviewed. We will report our findings to the BOCC and Public Works soon enough that the information may be used in preparing the 2006/2007 RFP. We will also request that the Water Quality Scientist meet at least quarterly with the SAC to brief us on the data that is being reported.

Respectfully Submitted,

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